Appl. No.:    09/524,140
Amdt. dat d Dec mber 1, 2003
Reply to Office action of October 22, 2003

### REMARKS/ARGUMENTS

Applicants received the Office Action dated October 22, 2003, in which the Examiner: (1) rejected claims 1-25 as being directed to non-statutory subject matter and (2) rejected claims 1-25 as obvious over Megiddo (U.S. Pat. No. 6,182,070) in view of Castelli (U.S. Pat. No. 5,978,788). In this Response, Applicants amend claims 1, 8, and 17, and submit new claims 26-27. Based on the arguments and amendments contained herein, Applicants believe all claims to be in condition for allowance. Accordingly, Applicants respectfully request reconsideration and allowance of the pending claims.

Applicants amend independent claim 1 in several regards. First, language has been added to direct claim 1 to ensure claim 1 is directed to statuary subject matter. More specifically, the claimed acts are now referenced as being performed "in a processing system."

In addition, claim 1 has been amended to more precisely define the association cubes vis-à-vis the art of record. As such, claim 1 now requires "in a processing system receiving a volume cube that represents the purchase volume of customers" and "generating scoped association cubes, a population cube and a base cube based on the volume cube, wherein the scoped association cubes comprises a plurality of bases from distinct data sources."

Neither Megiddo nor Castelli teaches or suggests this combination of limitations. For instance, neither reference discloses generating a scoped association cube. Megiddo discloses "identifying associations rules between itemsets of transactions within a dataset" (Column 14, line 16-18), but does not disclose generating an association cube with a plurality of bases from distinct data sources. Instead, Megiddo teaches that "each generated association rule has the same threshold." (Column 7, lines 17-18) Castelli also does not satisfy this limitation. At least for this reason, claim 1 and its dependent claims 2-7 are patentable over Megiddo in view of Castelli.

Amended claim 8 is directed to a data processing system that requires a plurality of local stations ("LDOSs") that have a local computation engine and at least one global station ("GDOS") that has a global computation engine and that

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generates global profile cubes and scoped association rules, the scoped association rules comprising a plurality of bases from distinct data sources. With regard to the Examiner's § 101 rejection, the subject matter of claim 8 does affect, effect, or is affected by technology and thus falls within a statutory class of invention under § 101. More specifically, the local computation engine, the global computation engine, the plurality of local stations, and the global station define statutory subject matter that effect and are affected by technology. Accordingly, Applicants traverse the Examiner's § 101 rejection of claims 8-16.

As explained above, none of the art of record teaches or suggests the scoped association rules required by claim 8. Claim 8 and all claims that depend from claim 8 thus are patentable for at least this reason.

Amended claim 17 is directed to mining and summarizing, using a plurality of local servers, transaction data to generate local profile cubes; merging and mining, using at least one global server, said local profile cubes received from said plurality of LDOSs to generate global profile cubes and scoped association rules based on said local profile cubes, wherein the scoped association rules comprises a plurality of bases from distinct data sources. As such, claim 17 is directed toward statutory subject matter that does affect and is affected by technology and thus falls within a statutory class of invention under § 101. Accordingly, Applicants traverse the § 101 rejections of claims 17-25.

Again, Megiddo and Castelli do not teach or suggest the scoped association rules required by claim 17. Claim 17 and all claims that depend from claim 17 are patentable for at least this reason.

New claim 26 is directed to a processing system for receiving a volume cube that represents the purchase volume of customers; in the processing system generating a scoped association cubes, a population cube and a base cube based on the volume cube, wherein the scoped association cubes comprise a plurality of bases from distinct data sources. None of the art of record teaches or suggests this feature. As such, claim 26 and claim 27, which depends from claim 26, are allowable.

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New claim 28 is directed to a system that requires, at a minimum, a local station that comprises a local computation engine for mining and summarizing the local transaction data and for generating local customer profile cubes; and a global station that comprises a global computation engine for generating global profile cubes and scoped association rules, the scoped association rules comprising a plurality of bases from distinct data sources and based on said local profile cubes. None of the art of record teaches or suggests this feature. As such, claim 28 and claim 29, which depends from claim 28, are allowable.

In the course of the foregoing discussions, Applicants may have at times referred to claim limitations in shorthand fashion, or may have focused on a particular claim element. This discussion should not be interpreted to mean that the other limitations can be ignored or dismissed. The claims must be viewed as a whole, and each limitation of the claims must be considered when determining the patentability of the claims. Moreover, it should be understood that there may be other distinctions between the claims and the prior art which have yet to be raised, but which may be raised in the future.

Applicants respectfully request that a timely Notice of Allowance be issued in this case. If any fees or time extensions are inadvertently omitted or if any fees have been overpaid, please appropriately charge or credit those fees to Hewlett-Packard Company Deposit Account Number 08-2025 and enter any time extension(s) necessary to prevent this case from being abandoned.

Respectfully submitted,

Jonathan M. Harris
PTO Reg. No. 44,144
CONLEY ROSE, P.C.
(713) 238-8000 (Phone)
(713) 238-8008 (Fax)
ATTORNEY FOR APPLICANTS

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
Legal Dept., M/S 35
P.O. Box 272400
Fort Collins, CO 80527-2400